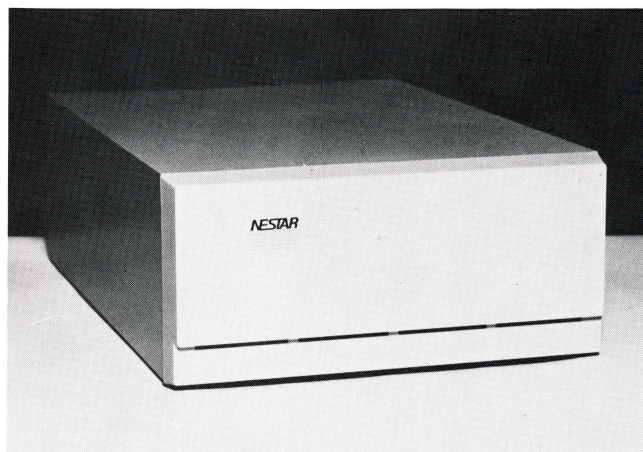


Hard Disk Drive

Model A-2002 and A-2003

Cluster/One

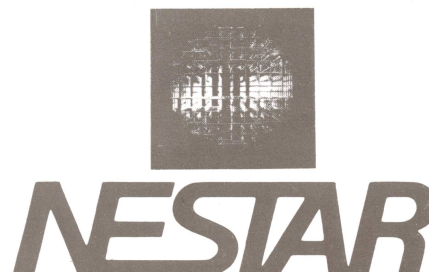


Description

Nestar offers two fixed media rigid disk drive units which allow users of the CLUSTER/ONE system to share low-cost, high-performance mass storage devices. These 14-inch Winchester technology drives provide a choice of 20 and 40 Megabytes of unformatted storage, with a significant cost-performance capacity ratio for rigid disk drives. Data integrity comparable to that found in large disk systems is assured by the use of Winchester-style heads and media. System reliability is maximized by the sealed contamination-free disk compartment and the reduction in parts count achieved by the use of a microprocessor. Hard disks are complete with cable and Apple interface card which plugs directly into the Network File Server. The Network File Server controls network access to disk storage.

Nestar Disk Features:

- 16.5 and 33 Megabytes formatted capacity storage
- Data integrity and system reliability rarely found in low-cost systems
- Data transfer rate improvement of 15:1 over double-density floppy disks
- Winchester technology heads and media provide state-of-the-art performance
- High-speed start/stop and landing zones maximize head/media life
- Single board microprocessor-based electronics provide flexibility and simplify maintenance
- Multiple hard disks can be connected together to run from one Network File Server



Specifications Summary

Performance Specifications

Data Reliability

Mean Time Between Failures (MTBF)—8,000 hours for the basic drive.

Mean Time Between Failures (MTBF)—25,000 hours for sealed mechanism.

Recoverable Read Error Rate—less than one error in 10^{10} bits read.

Non-recoverable Error Rate—less than one error in 10^{10} bits read.

Positioning Error Rate—less than one error in 10^6 seek executions.

Data Handling

A-2002 A-2003

Bytes per track: 24K 24K

Tracks per cylinder: 4 8

Cylinders per drive: 210 210

Bytes per drive: 20.16M 40.32M

Single track positioning time: 20 milliseconds

Average positioning time: 60 milliseconds

Maximum positioning time: 130 milliseconds

Rotational Speed (Nominal): 2400 RPM

Average latency: 12.5 milliseconds

Recording density: 7545 BPI

Track density: 182 tracks per inch

I/O Transfer rate: 960 Kilobytes per second

Recording code: MFM, NRZ Serial

Start time (Nominal): 3 minutes

Physical Specifications

Power

100-115VAC, 60 Hz, 425W maximum with circuit breaker protection.

Other voltages available.

Environmental

Operating temperature: 50°F to 104°F (10°C to 40°C) with a maximum gradient of 18°F (10°C) per hour.

Storage temperature: -40°F to 140°F (-40°C to 60°C).

Humidity: Operational at 10% to 90% relative humidity, non-condensing.

Altitude: -1000 to 10,000 feet (-300 to 3000 meters)

Vibration: Peak displacement of ± 0.006 " (.015cm) for frequency range of 20 to 40 Hz and $\pm 1g$ for 40 to 200 Hz range.

When packed for shipment, will withstand $\pm 1.5g$ from 5 to 500 Hz for one hr. along each of three mutually perpendicular axes, with a 20 minute sweep time.

Shock: Performs all read/write operations (no seek) while subjected to shocks of 3g ($\pm 10\%$) consisting of three shocks along each direction of three mutually perpendicular axes.

Mechanical

Color: Light grey

Dimensions: 19"W \times 9"H \times 29"D (48.3cm \times 23cm \times 74cm)

Weight: 110 lbs. (50kg) All steel cabinet.

Approvals

UL listed and CSA approved

Due to our continuing program of product development, specifications are subject to change without notice.

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